and in multiple hypermetabolic lesions in thyroid, lungs, liver, left adrenal, stomach lesser curvature, retroperitoneal and pelvic nodes, peritoneal implants and bones, suggesting metastatic involvement. **Conclusion:** This report shows a patient with a clinical picture, physical examination and complementary exams compatible with anorectal neoplasia. Immunohistochemistry confirms the diagnosis of melanoma. Anorectal melanomas are extremely rare and aggressive. Lymphatic dissemination of anal melanomas results in distant metastases to the liver and lungs by up to 90% of cases. These findings are in line with the FDG PET/CT reported in our study. 18F-FDG PET/CT may be useful in the primary staging of anal melanoma patients and in identifying lesions missed by other conventional radiological methods.

Keywords: 18F-FDG PET/CT, Anorectal, Melanoma.

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18F-FDG PET/CT IN ANTISYNTHETASE SYNDROME: CASE REPORT

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Introduction/Justification: Antisynthetase syndrome is an autoimmune pathology characterized by production of autoantibodies against aminoacyl tRNA synthetase, mainly anti-Jo-1. **Report:** Male patient presenting a clinical picture of polyarthritis in hands and wrists, periorbital edema, myositis and interstitial lung disease. FAN 1/320 (nuclear homogeneous), reactive anti Jo-1, elevated CPK, erythrocyte sedimentation rate and CRP. MRI presenting muscle edema, electroneuromyography compatible with myopathy and chest CT scan suggesting inflammatory/infectious pattern. Patient was diagnosed with antisynthetase syndrome and prednisone introduced. Later on course cyclophosphamide was added due to lung involvement. He evolved with respiratory and joint symptom improvement but with progressive worsening of muscle symptoms, characterized by proximal weakness (difficulty getting out of bed and car, daily life activities like brushing his teeths and eating). He also presented CPK rise, persistent subfebrile temperature and signs of inflammatory activity (leukocytosis and CRP rise), without any apparent focus and isolated episodes of dysphagia. Rituximabe was introduced and PET/CT scan was performed to search for the focus of the infection. PET/CT showed a diffuse pattern of muscle hypermetabolism, specially in right lower limb, suggesting a diffuse muscle inflammation without any infectious focus. **Conclusion:** Antisynthetase syndrome is a rare entity with few PET/CT reports in the literature. However PET scan appears to be very useful in the investigation of fever of unknown origin, diagnosing inflammatory activity and in response assessment evaluation.

Keywords: 18F-FDG PET/CT, Antisynthetase syndrome, Case report.

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RADIOEMBOLIZAÇÃO COM ÍTRIO-90 EM METÁSTASE HEPÁTICA DE CÂNCER DO COLO DO ÚTERO. RARO CASO DE SUCESSO

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Introdução/Justificativa: A radioembolização interna seletiva (SIRT) é uma terapia promissora dirigida ao fígado para pacientes com câncer hepático primário e metastático. A SIRT oferece diversas vantagens sobre os métodos de tratamento tradicionais devido ao seu perfil de baixa toxicidade. A grande maioria dos estudos com aplicação intra-arterial hepática de microesferas com ítrio-90 tem sido descrita para tratamento do hepatocarcinoma e metástases hepáticas do câncer colorretal. As metástases hepáticas no câncer do colo do útero são raras, ocorrem em menos de 5% dos casos e oferecem pior prognóstico, principamente na falha dos esquemas de quimioterapia. A sobrevida global em 12 meses é de 20% e em 24 meses de 8%, com mediana de 6,8 meses. A terapia local hepática direcionada, de menor toxicicidade, para casos bem selecionados, pode retardar a progressão da doença. **Relato:** Este caso relata o histórico oncológico de uma mulher de 39 anos, com diagnóstico de carcinoma espinocelular endocervical estádio IV ao diagnóstico, com metástase pulmonar, linfonodal e hepática, submetida a conização e tratamento quimioterápico com 6 ciclos de Carboplatina + Paclitaxel e Bevacizumab. Após quimioterapia, apresentou resposta completa das lesões linfonodais e pulmonar, porém com persistência de doença ativa metastática no segmento VI do fígado ao estudo de PET/CT com 18F-FDG. Após discussão multidisciplinar, optou-se por tratamento local com ítrio-90. Paciente recebeu 1 Gbq de ítrio-90 na lesão única do segmento

VI do fígado, dosimetria realizada pelo método Partition, com resposta completa e necrose da lesão tumoral. Realizou teste do PDL1, com resultado negativo. Foi mantida em tratamento com Bevacizumab (anticorpo monoclonal anti-VEGF humanizado) e o PET/CT de controle, após 3 anos e 3 meses da radioembolização não demonstra atualmente evidência de doença. **Conclusão:** Este é o segundo caso na literatura com resposta completa de metástase hepática por neoplasia do colo do útero, tratado com radioembolização hepática com ítrio-90. A aplicação deste tratamento em metástases hepáticas por diversos tumores como: mama, rim, tumores neuroendócrinos, pâncreas e ovário, tem sido reportados com bons resultados. No entanto, para o colo do útero, são muito poucos os casos descritos. A demonstração de resposta segura e satisfatória ao tratamento locorregional com radioembolização com microesferas de ítrio-90 em metástases não habituais do fígado, possibilita ampliação da indicação deste tratamento em casos bem selecionados.

Palavras-chave: Câncer do colo do útero metastático, Ítrio90, Radioembolização hepática.

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DUAL-TRACER PET/CT IN MYELOFIBROSIS: A CASE SERIES ANALYSIS USING 18F-FDG AND 18F-PSMA PET/CT

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Introduction/Justification: Myelofibrosis, a clonal disorder of hematopoietic stem cells, is characterized by chronic bone marrow inflammation and progressive fibrosis, resulting in hypocellularity and the displacement of neoplastic cells to extramedullary organs such as the spleen and liver, leading to splenomegaly and hepatomegaly. Hematopoietic stem cell transplantation is currently the only curative treatment, with five-year survival rates ranging between 51% and 61%, underscoring the need for novel diagnostic and therapeutic strategies. In recent years, positron emission tomography combined with computed tomography (PET/CT) using 18F-fluorodeoxyglucose (18F-FDG) has emerged as a valuable tool for assessing the glycolytic activity of various neoplasms, although there are limited reports on its utility in myelofibrosis. Concurrently, interest has grown in using the prostate-specific membrane antigen (PSMA) tracer to evaluate the neoangiogenic activity of diverse neoplasms. This study aims to compare glycolytic activity and neoangiogenic activity, assessed through 18F-FDG and 18F-PSMA PET/CT imaging, respectively, in patients with myelofibrosis. **Report:** Three patients diagnosed with myelofibrosis, aged 69, 71, and 74 years, underwent PET/CT scans on consecutive days, acquired 60 minutes after intravenous administration of 0.1 mCi/kg of 18F-FDG and 90 minutes after intravenous injection of 0.1 mCi/kg of 18F-PSMA. The images were analyzed by two nuclear medicine physicians and a radiologist. The maximum standardized uptake value (SUV) of the bone marrow, as well as the SUV and dimensions of the liver and spleen, were measured. Two patients exhibited mild to moderate diffuse increased uptake of both 18F-FDG and 18F-PSMA in the bone marrow (SUV-FDG: 6.4 and 3.5; SUV-PSMA: 3.5 and 1.7). One of them displayed mild hepatomegaly (18.7 cm), and both had marked splenomegaly (21.5 and 30.3 cm). Liver and spleen uptake of 18F-FDG was close to normal in both patients (SUV-FDG: 2.4 to 3.1), while moderate uptake of 18F-PSMA was observed in these organs (SUV-PSMA: 5.6 to 8.4), at least partially physiological and expected for this radiopharmaceutical. The third patient, who had undergone splenectomy, did not exhibit significant uptake of either tracer in the bone marrow but displayed marked uptake of 18F-PSMA in the liver (SUV-PSMA = 14.8), possibly physiological, with normal 18F-FDG uptake (SUV-FDG = 3.9). **Conclusion:** Patients with myelofibrosis appear to exhibit variable degrees of glycolytic activity and neoangiogenesis in the bone marrow, as detected by PET/CT imaging with 18F-FDG and 18F-PSMA. The moderate to marked uptake of 18F-PSMA in the liver and spleen, at least partly physiological, along with the uptake in the bone marrow in some cases, may suggest a theranostic potential of this radiopharmaceutical in myelofibrosis.

Keywords: 18F-FDG, 18F-PSMA, Myelofibrosis, PET/CT.

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